



A Guide  
on  
Hazardous Waste Management  
for Florida's  
**Printers**

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## Hazardous Waste (RCRA) Compliance Assistance Program



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This document was published to help educate businesses on hazardous waste management issues affecting them. The suggested options may help businesses to operate in an environmentally appropriate manner. Some of the options may go beyond what is required to remain in compliance with regulations. Business owners are responsible for obtaining complete information about applicable regulations. Misrepresentations or omissions by the Florida Department of Environmental Protection or the Florida Center for Solid and Hazardous Waste Management do not relieve any person from any requirement of federal regulations or Florida law.

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## WHY SHOULD I CARE ABOUT HAZARDOUS WASTES?

As a business owner, operator, or employee, you may be producing materials that can harm people and the environment.

This booklet offers helpful tips on how to:

- Comply with federal and state hazardous waste regulations.
- Avoid penalties by properly managing hazardous wastes.
- Save money on disposal costs by reducing hazardous wastes.

### Health and Environment

Hazardous wastes spilled or dumped on the ground or disposed of in dumpsters may seep into the ground water and contaminate drinking water supplies.

Hazardous wastes may run off into the nearest body of water where they may poison or kill fish and other wildlife.

Hazardous wastes pose a health risk to you, your employees, and your community.

### Cost Savings

State and county inspectors may visit your business to ensure that hazardous wastes are being managed properly. State penalties may range from \$100 to **\$50,000 Per Violation Per Day.**

Reducing hazardous wastes can reduce your production and disposal costs and reduce your risk of future liability.

### Public Image

Your customers will appreciate your efforts to prevent pollution.

Your community will recognize your business as a good neighbor.

## WHAT IS A HAZARDOUS WASTE?

A waste is hazardous if:

- It has any of the characteristics described below.
- It is listed as a hazardous waste in the Code of Federal Regulations, 40 CFR Part 261.

### Characteristic Wastes

#### Ignitable

Ignitable Wastes are easily combustible or flammable. If they have a flashpoint of 140°F or less or an alcohol content of 24% or more, they are hazardous wastes.



#### Corrosive

Corrosive wastes corrode metals or other materials or burn the skin. These liquids have a pH of 2 or lower or 12.5 or higher.



#### Reactive

Reactive wastes are unstable and react rapidly or violently with water or other materials.



#### Toxic

Wastes are toxic if they contain heavy metals, such as chromium, lead or cadmium, or toxic chemicals.



## Listed Wastes

A waste is hazardous if it is listed in the Code of Federal Regulations, 40 CFR Part 261. For details on listed wastes and waste code numbers, contact the Florida Department of Environmental Protection. (See end of manual for DEP phone numbers) The Code of Federal Regulations is available at most libraries or may be purchased from the U.S. Government Bookstore (phone: 904-353-0569).

## Acutely Hazardous Wastes

Small amounts of very dangerous wastes, such as arsenic and cyanide compounds, are regulated in the same way as large amounts of other wastes. A business that generates 2.2 pounds (1 kilogram) or more of these acutely toxic wastes per month is subject to full regulation under the hazardous waste rules.

## Identifying Your Hazardous Wastes

It is very important to determine whether a waste is hazardous or non-hazardous. There are several ways to identify hazardous wastes.

- Obtain and read Material Safety Data Sheets(MSDS)
- Talk to product suppliers and manufacturers.
- Read product labels.
- Compare product and process information to hazardous waste characteristics and to wastes listed in federal regulations.
- If product or process information is not available or is inconclusive, have a commercial lab sample and test the waste using the TCLP test.
- A non-hazardous material or product may become a hazardous waste due to contaminants added during use. Lab testing may be necessary.



## **Waste Inks**

Determine whether waste inks are hazardous, or assume they are hazardous and dispose of them as hazardous wastes. Consider using less toxic inks with low metal concentrations, vegetable based inks, and water based inks.

## **Spent Solvents**

Many spent solvents are considered hazardous wastes because they are ignitable or toxic. Segregate spent solvents and recycle them. To reduce hazardous waste disposal costs and air emissions, use solvents that are less hazardous or non-hazardous.

## **Fixers**

Untreated spent fixer is likely to be a hazardous waste and to exceed local sewer discharge limits for silver. Fixer should be treated on-site or off-site and should never be discharged to a septic tank unless you have a permit from DEP.

## **Shop Towels and Wipes**

Shop towels are hazardous wastes when they are contaminated with solvents that contain hazardous substances. They can be disposed of as hazardous waste, or a towel service may be used. If you use a towel service, make sure the company discharges its wastewater to a sanitary sewer. Used disposable wipers should be disposed of as hazardous waste.

## **Aerosol Cans**

Spray cans used in screen printing may contain hazardous chemicals such as 1,1,1-trichloroethylene or toluene. Empty aerosol cans may be thrown in the trash only if all the contents have been removed as completely as possible.

# WHO NEEDS TO KNOW IF MY BUSINESS GENERATES HAZARDOUS WASTES?

## Notify DEP

- If your business is a small or large quantity generator, notify DEP to obtain an EPA identification number. Local environmental agencies should also be notified.



## Notify Local Authorities

- Police and fire departments and local hospitals who would respond to an emergency need to know that there are hazardous wastes on your property.



## Designate an Emergency Coordinator

- This person must know what to do in case of a fire, spill, or other emergency and must be on the premises or on call 24 hours a day.



## Develop a Contingency Plan

Guidance on contingency plans is available from DEP. Large quantity generators must have a written plan that includes:

- Emergency response arrangements with police, fire, hospitals, and emergency response contractors.
- Emergency coordinators' addresses and phone numbers.
- On-site emergency equipment descriptions and locations.
- Evacuation plan and routes, including a site diagram.
- Spill reporting procedures.



## Post Emergency Information

Post the following information near every telephone:

**Fire Department Phone Number**  
**Emergency coordinator's name and phone number**  
**Locations of fire alarms and extinguishers**  
**Locations of spill control materials**



## How Should I Manage Hazardous Wastes?

First, determine how much hazardous waste you generate each month. The rules you must follow depend on how much you generate, how much you store, and how long you store it.

- **Less than 220 pounds** (100 kilograms or about half a drum): you are a "Conditionally Exempt Small Quantity Generator."
- **220-2,200 pounds** (100-1,000 kilograms, or about half a drum to 5 drums): You are a "Small Quantity Generator."
- **More than 2,200 pounds** (1,000 kilograms or more than about 5 drums): you are a "Large Quantity Generator."

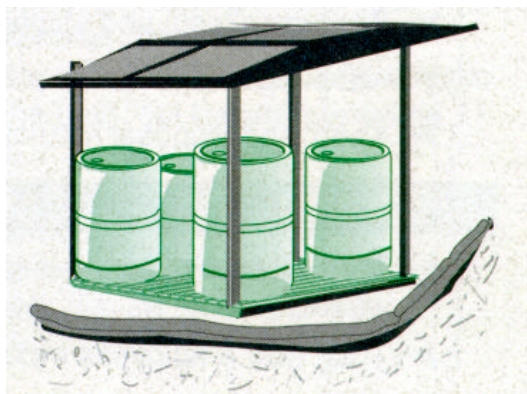
The following practices may be required for your business. Even if they are not required, they are good waste management practices. Additional information is available from DEP.

### Containers

- Maintain containers in good condition. Prevent leaks, ruptures, and accumulation of rainwater on tops of drums.
- If a container leaks, transfer waste to a new container.
- Keep containers closed. Use self-closing funnels.
- Wastes must be compatible with the container. For example, use HDPE plastic containers for corrosive wastes.
- Never place incompatible wastes, such as wastes that react with each other (acids and bases), in the same container.

### Storage

- Maintain adequate aisle space between container rows to allow inspection for leaks and damage.
- Store ignitable and reactive wastes at least 50 feet from property boundaries.
- Store containers of incompatible wastes in separate areas.
- Be aware of allowable time limits for storage.



## Labels

- Label every container with the type of waste and whether it is hazardous or non-hazardous.
- Include federal waste code numbers.
- Include the accumulation start date (the date when waste was first placed in the drum).
- Include your businesses name and address.
- Use the following words on labels for hazardous wastes:

**HAZARDOUS WASTE  
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL**

If found, please contact the nearest police or public safety authority or the U.S.  
EPA

(Your business's name and address and manifest document number)

## Transport and Disposal

- Make sure your transporter and disposal facility have EPA identification numbers.
- Use manifests for all hazardous wastes shipped offsite.

## Inspection and Record Keeping

- Inspect all containers at least once a week and keep a written log of container inspections.
- Keep training and inspection records for 3 years.
- Keep manifests and shipping receipts for 3 years.
- Keep records of lab tests for 3 years.
- Keep land disposal restriction forms for 3 years.

## Training

- Train all employees to identify, reduce, and properly handle wastes.
- Train new employees before they handle hazardous wastes.



## HOW CAN I REDUCE HAZARDOUS WASTES?

Reducing hazardous wastes makes good business sense. Benefits include:

- Saving money on waste management costs.
- Reducing concerns about penalties and liability.
- Creating a safer, healthier workplace.
- Promoting positive public relations with clients, customers, and the local community.

### How do I Begin?

- Make a commitment to reducing wastes in every area of your business.
- Evaluate your shop's wastes and identify areas where changes can be made.
- Encourage the participation of all employees through education, training, and incentives.

### Solvents

- Use wash without booths to collect spent solvents from cleaning.
- Use filtration systems to remove waste and increase recycling.
- Use distillation units to facilitate recycling and reuse of spent solvents.
- Store solvents away from heat
- Install a solvent ink filter to prolong the life of the solvent. Limit the amount of solvent that can be applied to cleaning rags.
- Develop a procedure for removing solvent from rags before disposal.
- Use properly fitting pumps on solvent containers to minimize spills and evaporation.
- Use a two-stage cleaning process, using dirty solvent followed by a clean rinse, to reduce solvent usage.

### Purchasing

- Reject free samples of solvents to reduce extra disposal costs.
- Purchase inks in containers that can be refilled by the supplier.
- Look for substitutes for toxic solvents.
- Avoid inks containing heavy metal pigments.

### Chemical Management

- Follow manufacturer's directions on storing chemicals that are sensitive to lights and temperature.
- Avoid overstocking to reduce expired materials.
- Ask vendors for non-hazardous developers and finishers, and non-hazardous chemical substitutes for intensifiers and reducers that contain mercury or cyanide salts.

## **Inventory**

- Minimize inventory and use a "first-in, first-out" system to prevent the need for disposal of old unused materials.
- Maintain accurate logs of chemicals and materials in stock.
- Keep containers clearly marked.

## **WHERE CAN I GET MORE INFORMATION?**

Additional information on hazardous waste reduction and regulations is available from many sources.

### **Florida Department of Environmental Protection**

District offices and the Tallahassee office offer technical assistance, fact sheets, and other publications on hazardous waste regulations.

- **Hazardous Waste Compliance Assistance Program**  
Phone: (850) 488-0300  
Fax: (850) 921-8018

Available publications include: Summary of Hazardous Waste Regulations  
Requirements for Conditionally Exempt Small Quantity Generators  
Requirements for Small Quantity Generators  
Handbook for Small Quantity Generators of Hazardous Waste

### **Florida Small Business Assistance Program**

The Small Business Assistance Program helps businesses with environmental concerns and problems related to compliance with air regulations. Assistance is confidential and staff experts have business experience.

- Phone: (800) 722-7457

### **U.S. Environmental Protection Agency**

The EPA has published a series of industry-specific guidelines and handbooks on preventing pollution and complying with hazardous waste regulations.

- RCRA Hotline (800) 424-9346

## **Florida Printers' Compliance Alliance**

The Florida Printers' Compliance Alliance is a proposed partnership of industry and government. The Compliance Alliance Program (CAP) is being designed to provide printers with assistance in understanding environmental requirements and implementing pollution prevention techniques. CAP has developed a workbook to help printers incorporate cheaper, cleaner, and smarter practices in their daily operations. For a copy of the workbook or for additional information call:

- Printing Association of Florida (800) 331-0461

## **Your Trade Associations**

Many trade association have published guides to help you find solutions to your hazardous waste management problems. Information is available from the following organizations:

- Flexographic Technical Association (FTA)  
(516) 737-6020  
<http://www.gaff.org>
- Graphic Arts Technical Foundation (GATF)  
(412) 741-6860  
<http://www.fta-fta.org>
- Gravure Association of America (GAA)  
(716) 436-2150  
<http://www.gaa.org>
- Printing Association of Florida (PAF)  
(800) 331-0461-Harold Yankelwitz  
<http://www.pwr.com/PRINTPAF/>
- Screenprinting and Graphic Imaging Association International (SGIA)-  
(703) 385-1335  
<http://www.sgia.org>

## CHECKLIST



**This checklist will help you to prevent the most common hazardous waste violations.**

For more detailed information on hazardous waste management requirements, contact DEP.

- ☐ Identify types and quantities of hazardous wastes.
- ☐ Notify Florida DEP and obtain an EPA identification number from DEP
- ☐ Use proper containers to collect and store wastes.
- ☐ Label all containers as hazardous or non-hazardous wastes.
- ☐ Include accumulation start dates on labels.
- ☐ Keep containers of hazardous waste closed.
- ☐ Maintain aisle space between containers for inspection.
- ☐ Inspect containers weekly for rust, leaks, or damage and keep inspection records for at least 3 years.
- ☐ Never discharge hazardous wastes to a septic tank unless you have a DEP permit.
- ☐ Train employees to properly handle hazardous waste.
- ☐ Designate an emergency coordinator.
- ☐ Notify police, hospitals, and fire department.
- ☐ Post emergency information near each phone.
- ☐ Develop a contingency plan for emergencies.
- ☐ Use manifests for all waste transported for disposal.
- ☐ Keep all records for at least 3 years.

# OFFICES OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Northwest District

160 Government Center  
Pensacola, FL 32501-5794  
850/444-8300 (SC 695-8300)

## Northeast District

7825 Baymeadows Way  
Suite B200  
Jacksonville, FL 32256-7590  
904/448-4300 (SC 880-4300)



### N.W. Dist. Branch Office

2353 Jenks Ave.  
Panama City, FL 32405  
850/872-4375 (SC 777-4375)

### N.W. Dist. Branch Office

2815 Remington Green Cir  
Suite A  
Tallahassee, FL 32308-1513  
850/488-3704 (SC 278-3704)

### N.E. Dist. Branch Office

101 N.W. 75th St.  
Suite 3  
Gainesville, FL 32607-1609  
352/333-2850 (SC 627-2850)

## Central District

3319 Maguire Blvd.  
Suite 232  
Orlando, FL 32803-3767  
407/894-7555  
(SC 325-2290)

### Central Dist. Branch Office

13 East Melbourne Ave.  
Melbourne, FL 32901  
407/984-4800  
(SC 350-4800)

## Southwest District

3804 Coconut Palm Dr.  
Tampa, FL 33619-8318  
813/744-6100 (SC 512-1042)

### S.W. Dist. Satellite Office

170 Century Blvd.  
Barrow, FL 33830-7700  
941/534-1448 (SC 572-6200)

### S.W. Dist. Satellite Office

6700 Clark Rd.  
Sarasota, FL 34241  
941/361-6178

## South District

2295 Victoria Ave  
Suite 364  
P.O. Box 2549  
Ft. Myers, FL 33091  
941/332-6975 (SC 765-5815)

### South Dist. Branch Office

7451 Golf Course Blvd.  
Punta Gorda, FL 33982  
941/575-5814 (SC 765-5815)

### South Dist. Branch Office

2796 Overseas Highway  
Suite 221  
Marathon, FL 33050  
305/289-2310 (SC 464-2310)

## Southeast District

400 N. Congress Ave.  
P.O. Box 15425  
West Palm Beach, FL 33416  
561/681-6600  
(SC 226-6600)

### S.E. Dist. Branch Office

1801 S.E. Hillmoor Dr.  
Suite C-204  
Port St. Lucie, FL 34952  
561/871-7662  
(SC 222-7662)

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